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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/412,510	10/05/1999	KENJI ITOH	0756-2045	9753
7590 06/07/2005			EXAMINER	
SIXBEY FRIEDMAN LEEDOM & FERGUSON PC			PADGETT, MARIANNE L	
8180 GREENSBORO DRIVE			ART UNIT	
SUITE 800			PAPER NUMBER	
MCLEAN, VA 22102			1762	

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/412,510

Applicant(s)

ITOH ET AL.

Examiner

Marianne L. Padgett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 42-86 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 42-86 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/14/05</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/14/05 has been entered.

2. The IDS submitted with the RCE 1/14/05 is made of record, and it is noted that of the US Patent references applied in the last 2 actions of 09/438,581, Kamaji et al (4,979,467), previously cited is the closest prior art, but while its plasma is localized to produce a high density plasma in the vicinity of a slit or slits in an electrode that is in a parallel configuration similar to that claimed (Fig. 1-2a & 9(a & b); col.7 & col.13-14), Kamaji et al's process also produces a low density plasma in the rest of the space between electrodes 20 & 22. The present claim language limits the location of the plasma to "at each said...inlet..." including description of its shape & excludes low density plasma as taught by Kamaji et al, especially as read in light of the specification which give no indication of the presence of any low density plasma, with disclosure as on p.15, 1st full paragraph indicating the plasma is confined & p.7 generally discussing the importance of inlet shape & gap in producing applicants' high density plasma regions in the vicinity of the inlets/ports. Hence while the examiner agrees with the appropriateness of applying Kamaji et al to a9581's claims that have more generic language, the present claims of this case are believed to be adequately distinguished thereover.

3. On reviewing the SN 09/438,581 continuing data & paper #42 action, it was noted that the statement "The art rejections made in the (581) case were reviewed, but...these rejections are not considered relevant to the present case, except for the obvious double patenting over PN 6,001,432, which is analogue to (581), but was previously treated in a previous obviousness type double patenting rejection (section No. 5, Paper No. 27, mailed July 5, 2003)", contains a significant error. It was not PN 6,001,432

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which was rejected & a terminal disclaimer submitted, but PN 6,001,431, hence that rejection & reinstatement of the one over SN 09/438,581 are still required.

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 42-86 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 42, 44, 53, 55-56 & 58 of copending Application No. 09/438,581. Although the conflicting claims are not identical, they are not patentably distinct from each other because as noted above, the application claims of (581) are the generic to the specific features of the instant invention's plasma structure & production, hence totally encompass

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this set of claims. It is noted that while (581)'s phrasing remains more general, so that the above described Kamaji et al is applicable, read in light of its specification, no unlocalized low density plasma appear to be intended, such that they are considered obvious variations. While these claims differ by being generic to use of unspecified reactive gas instead of generic etching or ashing, these are traditional uses of plasma, hence would have been obvious to employ in conventional plasma etching & ashing operations for their standard purposes.

Alternately, Claims 42-86 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 42, 44, 53, 55-56 & 58 of U.S. Patent No. 09/438,581 in view of Kamaji et al (discussed above). While the (581) claims limit the plasma to length & width of the opening, it is not necessarily required to be a slit, whoever Kamaji et al show the use of slit inlets in analogous high density plasmas with localized effects, hence it would have been obvious that such slit opening as used in Kamaji, would have been expected to be effective in determining useful shapes of the (581) openings, because of advantages to reaction rate taught by Kamaji et al (summary)

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Claims 42-86 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 43, 54, 57, 60-62 & 64-69 of U.S. Patent No. 09/438,581 in view of Jansen et al (5,073,785).

These claims further differ by being directed to a different result in the (581) application, that of depositing a film comprising carbon, instead of etching with a plasma of an analogous configuration. While the instant claims are directed to the etching technique of ashing, it is old and well known in the plasma art that plasma apparatus/process are useful for both etching and coating (CVD, PECVD) techniques. Jansen et al (785) illustrates use of carbon-containing gas compounds as claimed in (581) to produce C-containing films as required, via a plasma process (Abstract, figure; Summary; Ex. 1), where

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the example 1 also illustrates that the same apparatus is initially used for a plasma cleaning and descumming operations, thus an etching process, hence it would have been obvious to one of ordinary skill that the procedure of the instant claims would have been expected to have been useful for other processes than ashing, and that the generic claims of (581) would have been expected to also be useful for the specific process of etching, not just C-coating, as suggested by the range of uses illustrated by Jansen et al (785).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. Claims 42-86 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 6,001,432 in view of Jansen et al, and optionally Kamaji et al, as discussed above. These patent claims are substantially similar to its child case (581) discussed above, but lack the more generic options, hence the above arguments for obviousness also apply to this patent (432).

6. Other art of interest for related plasma configuration & production, but which are not prior art include Kondo (2005/0106094 A1) and Schaepkens [et al] (2005/0079295 A1 & 2005/0051094 A1).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne L. Padgett whose telephone number is (571) 272-1425. The examiner can normally be reached on M-F from about 8:30 a.m. to 4:30 p.m.

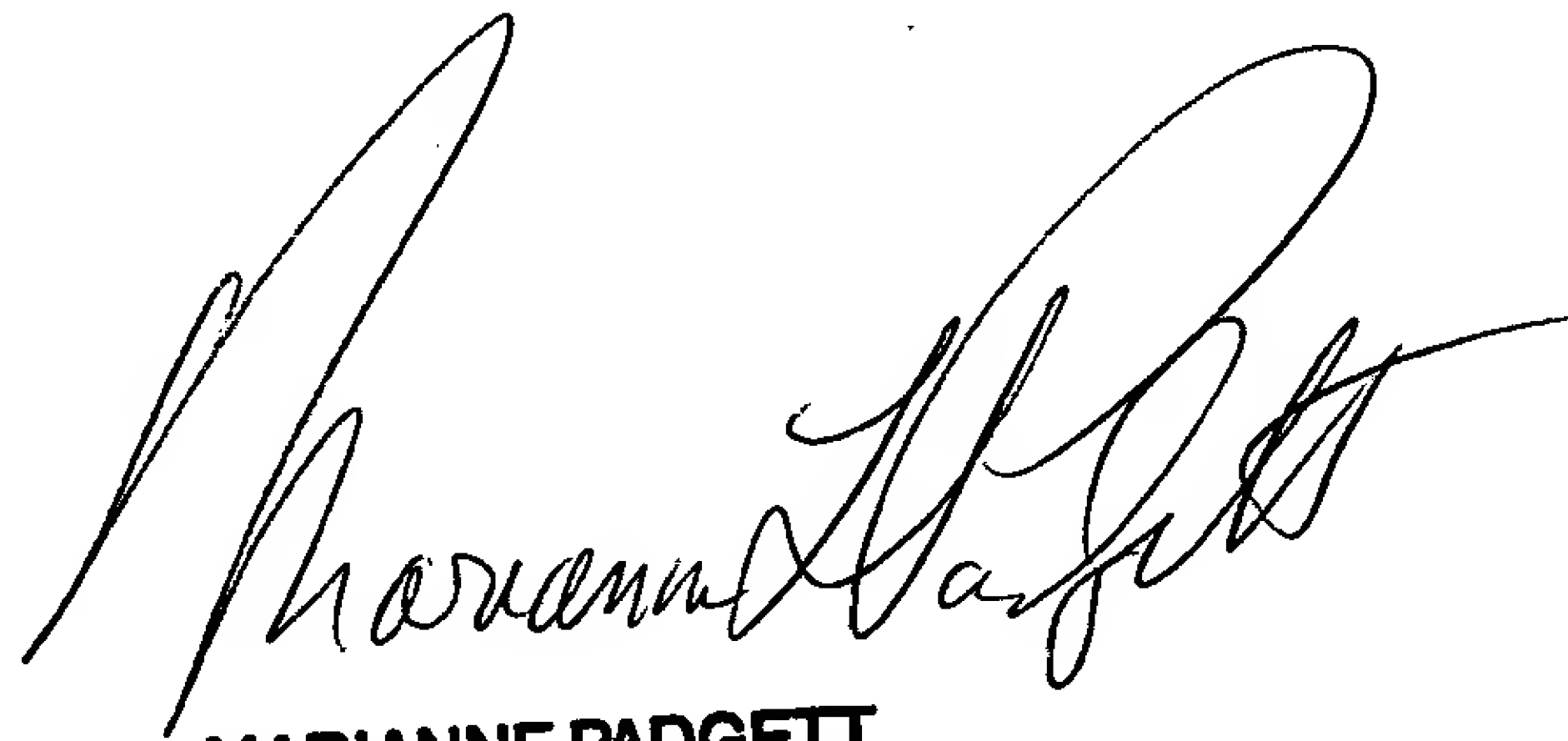
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks, can be reached at (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained

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from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MLP 6/3/05



**MARIANNE PADGETT
PRIMARY EXAMINER**